

PATENT APPLICATION

for:

"Laser/arc hybrid welding process
with appropriate gas mixture"

in the name of:

L'AIR LIQUIDE, SOCIETE ANONYME POUR L'ETUDE ET
L'EXPLOITATION DES PROCEDES GEORGES CLAUDE

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ABSTRACT

Process for welding one or more metal workpieces to be joined together by producing at least one welded joint between the edges to be welded of the said metal workpiece or workpieces, the said welded joint being obtained by using at least one laser beam and at least one electric arc, in which process, during welding of the joint, at least one part of the welding zone comprising at least one part of said welded joint is shielded during the operation with at least one shielding atmosphere formed by a gas mixture consisting of argon and/or helium with a content greater than or equal to 70% by volume; and at least one additional compound chosen from H_2 , O_2 , CO_2 and N_2 with a content of 0 to 30% by volume.

Figure 3